

March 29th., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Nascot, Tennessee.

Dear Sir:

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday March the 26th., 1930.

The electricians have handled the following "jobs": The wiring at Lime plant which was damaged by fire, (and replaced with temporary wiring at the time to resume operations) has been replaced with permanent wiring.

New magnetic switches have been installed to operate new settling tank motor, and flotation concentrate motor, replacing temporary switches which were put in when motors were installed. Motors and starters were also installed on sand conveyor and sand pump in the mill for handling Highway sand.

Meter readings were taken on Jeansville pump motors at No.2 mine while discharge from pumps was being measured with weir. Some time was spent on locomotive motor repairs. Several B. & D. wiring repair jobs were taken care of. Some work was also done on power line repairs.

Some time was spent straightening up light and signal wiring in No.2 mine. A new portable cover was made and put over No.2 gyratory crusher motor. Some time was spent cleaning motor shafts and giving shafts a coat of lacquer to prevent rust on motors in motor shed.

The shops and repair gang have handled the following jobs: The bulkhead door in drift at top of west incline in No.2 mine was opened and new gasket put on and door closed again, which has cut off a considerable amount of water that was being pumped from No.2. This water now is coming back into No.1 mine, which will save considerable lift on the pumping besides it will build up surplus in our No.1 storage, and can be used to advantage by not having to turn water in from No.3 during time we have to run No.1 pumps for mill water supply.

No.2 pump sump was given a thorough cleaning.

Almost all of the old Gould pump has been taken out of No.2 mine and put in the junk pile.

Six cars were taken out of No.2 mine last Sunday and brought to the shop for overhauling. They are being straightened up, and rebraced and riveted, and new 16" trucks with R.R. type journal boxes being put under them.

No.3 Jeansville pump was completely overhauled. The usual amount of drill repairs was taken care of. Some time was spent on new safety chute for No.2. Some repairs were made on stopp drags.

Some time was spent machining eccentrics for new jigs for the mill. Some work was also done on mill samplers. Also cut a number of liners for mill jigs.

Some repair parts were turned out for A.L.C.'s dryer feeders, zero pulverizers, and for sand and gravel screens.

The usual amount of B. & D. plumbing and camp water line repairs was taken care of.

Remainder of time was spent on miscellaneous work.

Yours very truly,

H. Mitchell

ICM:W.
CC:HIY
CBS
RA

Power and Mechanical Report For Week Ending March 26th., 1930.

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	89	571
No. 2	1985	1725

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
	No interruptions Or Delays				

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	11,758	11,629
Tons Milled	11,603	12,580
1. KW. Hrs. Total Plant	352,400	360,400
2. " " Total Lime Plant and Gravel Loading	43,480	52,280
3. " " Total Air Compressors	40,980	38,880
4. " " Total No. 1 Mine (Air Hoists and Pumps)	55,760	59,840
5. " " Total No. 2 Mine (Hoists and Pumps)	87,780	79,520
6. " " No. 1 C. C. Plant	--	--
7. " " No. 1 F. C. Plant (No. 2 Ore)	19,840	19,840
8. " " No. 1 F. C. Plant (No. 1 Ore)	--	--
9. " " No. 1 Fine Grinding Plant	36,480	39,240
10. " " Flotation Mill	22,380	23,620
11. " " Total No. 1 Mill	114,240	115,360
12. " " Concentrate Drying Plant Meter	3,500	3,700
13. " " No. 2 C. C. Plant and Tramway	12,400	11,800
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	4,600	6,400
16. " " Gravel Loading Station	1,120	1,280
17. " " Limestone Plant Proper	42,360	51,000
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	26.28	26.49
19. Holston Quarry Total KW.	12,800	16,400

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....

April 5th., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Mascot, Tennessee.

Dear Sir:

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday April the 2nd., 1930.

The following "jobs" were handled by the electricians: Some time was spent setting new poles in camp lighting circuits and straightening up wiring. Some work was done on B. & D. wiring repairs.

The additional rooms in House No. 93, Church street, were wired for lights. The armature from $7\frac{1}{2}$ H.P. stoep drag motor was brought to the shop and cleaned up, and resoldered, after it had heated to point where solder was thrown from connections. This was caused by over load with new drag.

A new disconnecting switch was put in drag motor circuit at 1 H.B. Mill hole. No. 2 sacker motor rotor was brought to the shop and reset on shaft. A new set of bearings were put in No. 2 sacker elevator motor.

The power line going to Holston Hill was raised over telephone line and put on new poles furnished and set by the telephone company. Power lines to stoep drags at No. 2 were straightened up. Some work was done straightening up lighting circuit at flotation plant. The small centrifugal pump and motors at drying plant were brought to the shop, and lined up and put back in operation during last Sunday shut down.

The shops and repair gang have been kept busy on the following "jobs": Considerable time has been spent overhauling mine cars.

The remainder of the old Gould pump was brought out of No. 2 mine and put in scrap iron pile. Skip guides were repaired at No. 2 during shut down last Sunday. Skip cables were also oiled.

Some repair parts were made up for Jeansville pumps. The usual amount of drill repairs were taken care of. Some time was spent machining eccentrics, keyseating shaft and making same up for new Rougher jig for mill.

Impellers were assembled on shaft for Janney flotation machine. Two cams were bored out and pins put in for Dorr classifier. Some bolts were made for Rolls.

Some repair parts were turned out for Quarry Steam shovel. Some repairs were made to A.L. Company's dryer furnaces, and aero pulverizers. A considerable amount of pipe threading was done for Highway sand pipe lines. Assisted the warehouse in unloading a car load of steel.

All the Chemical fire engines were emptied and recharged, and other fire fighting equipment inspected.

Some B. & D. plumbing repairs were made. The remainder of time was spent on miscellaneous "jobs".

Yours very truly,



ICM:W.

CC:HIY
ELA
JHH

Power and Mechanical Report For Week Ending April 2nd., 1950.

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	88	89
No. 2	1248	1985

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
	No delays or interruptions.				

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	12,470	11,758
Tons Milled	12,763	11,603
1. KW. Hrs. Total Plant	336,000	352,400
2. " " Total Lime Plant and Gravel Loading	42,760	43,480
3. " " Total Air Compressors	40,260	40,980
4. " " Total No. 1 Mine (Air Hoists and Pumps)	56,000	53,760
5. " " Total No. 2 Mine (Hoists and Pumps)	67,050	67,750
6. " " No. 1 C. C. Plant	--	--
7. " " No. 1 F. C. Plant (No. 2 Ore)	20,096	19,840
8. " " No. 1 F. C. Plant (No. 1 Ore) Highway Sand	6,780	--
9. " " No. 1 Fine Grinding Plant	37,020	36,480
10. " " Flotation Mill	21,600	22,380
11. " " Total No. 1 Mill	118,000	114,240
12. " " Concentrate Drying Plant Meter	3,300	3,300
13. " " No. 2 C. C. Plant and Tramway	12,200	12,400
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	7,000	4,600
16. " " Gravel Loading Station	1,120	1,120
17. " " Limestone Plant Proper	41,640	42,360
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	23.51	26.28
19. Holston Quarry Total KW.	18,000	12,800

Maximum Demand this Month **3352** occurred on the **11th.** at **2:30P.M.**

Quarry Demand this Month **348** " " " **13th** " **7:30A.M.**

AMERICAN ZINC COMPANY OF TENNESSEE

ADDRESS ALL COMMUNICATIONS
TO THE COMPANY

MASCOT.
TENNESSEE

April 9th., 1930.

Mr. H. I. Young, Vice Pres.,
American Zinc, Lead & Smelt. Co.,
East St. Louis, Illinois.

Dear Mr. Young:

This is to advise you that we expect to have our quarterly Safety Dinner on Friday April the 25th., celebrating the good record made during the first quarter, and would like very much to be honored by your presence. Hope you can arrange to be here-- I hope that we can just keep this up during the quarter.

Please advise if this date meets with your approval.

Yours very truly,


Chairman Safety Com. 2nd Quarter.

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East St. Louis, Ill.
April 12, 1930

Mr. I. C. Mitchell, Chairman
Second Quarter Safety Committee
American Zinc Company of Tennessee
Waco, Tenn.

Dear Mr. Mitchell:

I have yours advising that the
Quarterly Safety Dinner will be Friday the 26th
of April.

In as much as our visitors ar-
rive in Knoxville on the evening of the 25th, I
may want some of the department heads in town.
I would suggest that you set the date for this
dinner at some other time. Suggest you discuss
same with Mr. Strachan after his return from St.
Louis and then you can fix a definite date.

Very truly yours,

Vice President

WIT:MR
cc-CBS
PMA

ATL
April 12th., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Hascot, Tennessee.

Dear Sir:

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday April the 9th., 1930.

A considerable amount of the electricians time was spent on camp power line repairs. A number of old poles were reset, where they were long enough and sound above the ground they were reset on lighting circuits but new poles were also put up. Three old poles on Church street were replaced with new ones. Holes have been dug and poles placed ready to put up a lime plant Rail road crossing.

The trouble on No. 2 Gyratory crusher motor seems to have been caused by small particle of some kind working in between rotor and stator and caused two coils to break down. They were cut out, and motor put back in operation. Then motor was taken apart last Sunday for inspection and determine if coils could be replaced with out damage to more coils, but after making inspection, we decided more harm might be done than good trying to replace coils, and motor was given good cleaning and painting and put back in operation.

A safety enclosed switch was put on large hot plate circuit at laboratory. Bearings were changed on filter motor at concentrate drying plant.

The 25 H.P. motor that was rewound in the shop for A.L.Co. dryers has been put back in operation, and the motor that was borrowed from Silver Dyke stock. (to use while other motor was out) was brought to the shop and cleaned and painted and is ready to go back to the Dyke Store room.

Some time was spent on mine lighting and signal repairs.

A new safety switch was connected to No.2 tippie.

The shops and repair gang have been kept busy on the following "jobs":

A considerable amount of the time was spent overhauling mine cars. This work is progressing at rate of about 5 cars per week.

An air pump was connected up at Q R E Bulkhead and water pumped from in front of door so inspection could be made of the door. A close inspection was made and door found to be in first class condition, and is not leaking at all.

Two bottom plates were cut and drilled to line skip pocket chute at No.2 This work will be done next Sunday. A new shaft assembly was made up for No.2 Jeansville pumps. Some time was spent on stope drag repairs. The usual amount of mine drill repairs was taken care of.

A number of liners were cut for mill jigs. A number of bolts were turned out for No.2 Gyratory crusher. Some repair parts were turned out for A.L. Co. dryer feeders. One of air heads from A.L.Co. Vacuum pump was brought to the shop and valve seats bored out and new seats put in. The head was in bad shape and seats had to be welded in.

Some repairs were turned out for A.L.Co. aero pulverizers, also for Quarry steam shovel. The usual amount of B. & D. plumbing was taken care of.

The sheet rolls in the shop were rebuilt. A number of other miscellaneous "jobs" were taken care of.

Yours very truly,

A. Mitchell

ICM:w.

CC: HLT
MLA
JHH

Power and Mechanical Report For Week Ending April 9th., 1930.

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	73	88
No. 2	1093	1248

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
4/8	No. 2 Gyrotory Crusher Motor	7:30A.M.	1	30	Two Coils shot.

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	11,880	12,470
Tons Milled	11,995	12,763
1. KW. Hrs. Total Plant	324,000	336,000
2. " " Total Lime Plant and Gravel Loading	39,200	42,760
3. " " Total Air Compressors	40,440	40,260
4. " " Total No. 1 Mine (Air Hoists and Pumps)	55,360	56,000
5. " " Total No. 2 Mine (Hoists and Pumps)	61,490	67,050
6. " " No. 1 C. C. Plant	---	---
7. " " No. 1 F. C. Plant (No. 2 Ore)	21,184	20,095
8. " " No. 1 F. C. Plant (No. 1 Ore)	4,760	8,780
9. " " No. 1 Fine Grinding Plant	37,500	37,020
10. " " Flotation Mill	21,480	21,600
11. " " Total No. 1 Mill	118,640	118,000
12. " " Concentrate Drying Plant Meter	3,300	3,300
13. " " No. 2 C. C. Plant and Tramway	11,720	12,200
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	5,000	7,000
16. " " Gravel Loading Station	600	1,120
17. " " Limestone Plant Proper	38,400	41,640
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	24.01	23.51
19. Holston Quarry Total KW.	17,200	18,000

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....

April 19th., 1930.

Mr. C. B. Strachan, Gen.Supt.,
American Zinc Company of Tenn.,
Hascot, Tennessee.

Dear Sir:

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday April the 16th., 1930.

The electricians spent considerable time straightening up camp power lines. A new pole was set on Holston Hill, and transformer supplying power to Mr. Strachan's and Mr. Kewman's residences was placed on new pole which puts transformer closer to load, and cutting down length of heavy wire.

Some new wire was stretched in Farm power line on section between No.2 hoist-house and old school building. During recent winds wires in this section blew together two or three different times and burned down. Seemed to be due to lack of mechanical strength in wires to support itself. It was replaced with No.8 weatherproof wire.

A temporary line was run from No.1 switch board to machine shop for testing new drag hoist. A heavier line was run from transformers on Holston Hill to Dormitory and carried as far in attic as possible. This line was built before so many appliances were in use. Some of small motors at concentrate drying plant were taken apart and given a thorough cleaning and painting. A burned out bearing was replaced in new Dorr tank motor. This bearing trouble was caused by tight belt.

Some time was spent straightening up light and signal wires in No.2 mine. Several E. & D. lighting repair "jobs" were taken care of.

The shops and repair gang were kept busy on the following:

Considerable time was spent overhauling mine cars.

SHOPS CONTD.

A new stope drag hoist was received and brought to the shop and assembled and given trial run, and some adjustments made. It was then taken into mine and installed at 1 H-D-Mill hole, replacing the small unit which has been operating at this location.

New bottoms were put in skip pocket shutes at No.2 last Sunday. Some repairs were turned out for No.2 mine pumps. Some time was spent on stope drag repairs. Some material was turned out for Highway sand equipment. Several drag cups were made for concentrate drag belt.

Two badly worn Janney machine impeller shafts were built up with arc welder, and machined to fit. A number of bolts were threaded for the mill. A considerable amount of time was spent on A.L.Co.'s aero pulveriser repairs. Some ventilating pipes were made for new housing put over Symons crusher motor at the Quarry.

Some more new valve seats were put in the Vacuum pump at line plant during last Sunday shut down which puts one cylinder in good shape.

Some repairs were turned out for Quarry shovel. Some bits were re-threaded for Quarry churn drills. Some time was spent on fire equipment inspection and making repairs to water lines.

A number of other miscellaneous "jobs" were taken care of.

Yours very truly,

Smithell

CC:RIY
MLA
JHE

Power and Mechanical Report For Week Ending April 16th., 1980.

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	347	75
No. 2	1044	1093

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
	No delays or interruptions.				

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	12,554	11,860
Tons Milled	12,742	11,995
1. KW. Hrs. Total Plant	321,600	324,000
2. " " Total Lime Plant and Gravel Loading	36,360	39,200
3. " " Total Air Compressors	40,680	40,440
4. " " Total No. 1 Mine (Air Hoists and Pumps)	65,360	55,360
5. " " Total No. 2 Mine (Hoists and Pumps)	59,770	61,490
6. " " No. 1 C. C. Plant	--	--
7. " " No. 1 F. C. Plant (No. 2 Ore)	19,008	21,184
8. " " No. 1 F. C. Plant (No. 1 Ore) Highway Sand	9,600	4,760
9. " " No. 1 Fine Grinding Plant	39,600	37,500
10. " " Flotation Mill	22,020	21,480
11. " " Total No. 1 Mill	126,240	119,640
12. " " Concentrate Drying Plant Meter	2,200	3,500
13. " " No. 2 C. C. Plant and Tramway	11,480	11,720
14. " " Air Used at Limestone Plant	5,000	5,000
15. " " Tube Mills A. L. Company	5,100	5,000
16. " " Gravel Loading Station	560	800
17. " " Limestone Plant Proper	35,400	38,400
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	23.89	24.01
19. Holston Quarry Total KW.	20,800	17,200

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....

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April 23rd., 1930.

Mr. P. M. Arthur,
Labor Office.

Dear Sir:

This is to advise that item No.5 in Work-
men's Safety Inspection report of April the 7th.,
has been complied with.

Yours very truly,


Mitchell

ICM:W.

UPTL
April 26th., 1930.

Mr. C. B. Strachan, Gen.Supt.,
American Zinc Company of Tenn.,
Nasoot, Tennessee.

Dear Sir:

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday April the 23rd., 1930.

The electricians have been kept busy on the following "jobs": Two new poles have been set and framed at Lime Plant where power lines cross Western Union lines. Wires will be transferred to new poles during the first shut down.

The tube mill feed Wilfley return pump motor was brought to the shop for repairs to damage caused by spill over, getting motor wet. Seventeen new coils were put in and motor given thorough drying out, and is now ready for use.

A 3 horse power motor and speed reducer were brought to the shop from Silver Dyke stock. The motor was reconnected for use on 440 volts instead of 220, and installed at concentrate drying plant to operate a concentrate conveyor for loading concentrates into cars. Quite a lot of time was spent on B. & D. lighting repairs, and camp power line.

One of flotation Janney motors from Silver Dyke stock was given overhauling in the shop, trying to work out something to keep lower bearings on flotation Janney motors from pumping oil, as that is where our biggest oil consumption is. Some time was spent setting and connecting new stope drag motor at I-H-D-mill hole.

The shops and repair gang have been kept busy on the following "jobs": Assisting mining department setting stope drag at I-H-D-mill hole. Considerable time was spent overhauling mine cars. Some work was done on stope drag repairs.

Some of old mine car axles were brought to the shop and straightened.

The unloading valve on Nordberg compressor was turned around, putting lever on back side of cylinder, getting same in clear of walkway.

The usual amount of mine drill repairs was taken care of. A number of elevator cups were made up for stock. These are being made of heavier material than has been used in the past.

Some time was spent overhauling flotation Janney motor in the shop. Some motor bearings were babbitted and machined for Quarry churn drills. Some repair parts were turned out for Quarry shovel. Some repair parts were also turned out for A.L.Co.'s dryer feeders.

The valve reseating job on lime plant Vacuum pump was completed during last Sunday shut down. Some time was spent on A.L.Co.'s aere pulverizer repairs. Some time was spent on general plant cleanup.

The usual amount of B. & D. plumbing was taken care of.

The remainder of time was spent on a number of other miscellaneous "jobs".

Yours very truly,

W. Mitchell

ICH:w.

CC:MIY
ELA
JHR

Power and Mechanical Report For Week Ending April 23rd., 1930.

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	696	547
No. 2	1005	1044

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
18	Main 2300 volt switch on jig tails elev. chatt rolls. and Switten pump	9:30		30	Spill over wet tube mill return pump motor, causing it blow up & kick switch, shutting mill down.

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	11,229	12,354
Tons Milled	11,348	12,742
1. KW. Hrs. Total Plant	336,400	331,600
2. " " Total Lime Plant and Gravel Loading	36,960	36,360
3. " " Total Air Compressors	41,580	40,680
4. " " Total No. 1 Mine (Air Hoists and Pumps)	71,680	63,360
5. " " Total No. 2 Mine (Hoists and Pumps)	55,670	59,770
6. " " No. 1 C. C. Plant	--	--
7. " " No. 1 F. C. Plant (No. 2 Ore)	19,008	19,008
8. " " No. 1 F. C. Plant (No. 1 Ore)	3,200	9,600
9. " " No. 1 Fine Grinding Plant	40,200	39,600
10. " " Flotation Mill	21,000	22,020
11. " " Total No. 1 Mill	129,920	126,240
12. " " Concentrate Drying Plant Meter	2,000	2,200
13. " " No. 2 C. C. Plant and Tramway	11,000	11,480
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	9,000	5,100
16. " " Gravel Loading Station	960	960
17. " " Limestone Plant Proper	36,000	35,400
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	26.66	23.89
19. Holston Quarry Total KW.	15,600	20,800

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....

May 3rd., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Nascent, Tennessee.

Dear Sir:

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday April the 30th., 1930.

The electricians spent some time finishing up transferring wires to new poles at lime plant where power line crosses Railroad, and putting up stub and guying poles in farm power line at Railroad crossing. Quite a lot of time was spent running power lines in the mine to stope drag at l-H-D- and l-H-E-mill hole drags.

Some coils burned out in No.2 mine shop grinder motor. This motor has been in bad shape for some time. The grinder motor was taken from No.1 mine shop and put in No.2 till burned out motor is repaired. The water plant generator gave some trouble. The commutator shot to ground through mica cone. It was repaired, but will have to be overhauled in the near future.

The shops and repair gang have been kept busy on the following "jobs": Considerable time was spent overhauling mine cars. Some time was spent on No.2 headframe, straightening up and repairing landing sheets.

Quite a lot of time was spent on l-H-D-Stope drag hoist repairs. The small Denver hoist was also brought to the shop and overhauled. The usual amount of mine drill repairs was required. A number of belts were made for Tube mill repairs.

Some work was done on mill Hummer screens. Some repair parts were turned out for No.2 Gyratory crusher. Some time was spent on repairs to automatic tram loading door. A new set of bearings were made for A.L.Co.'s chain conveyor. Some repair parts were also turned out for A.L.Co.'s dryer feeders.

Some time was spent on Quarry steam shovel repairs. A number of 22" elevator cups were made up for stock. Some time was spent on S. & D. plumbing and camp water line repairs.

A number of other miscellaneous "jobs" were taken care of.

Yours very truly,

A. Mitchell

10M:R.

Power and Mechanical Report For Week Ending April 30th., 1930.

DATA: *

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	576	696
No. 2	989	1005

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
	No interruptions or Delays.				

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	11,112	11,229
Tons Milled	11,621	11,348
1. KW. Hrs. Total Plant	303,900	326,400
2. " " Total Lime Plant and Gravel Loading	29,400	36,960
3. " " Total Air Compressors	39,600	41,580
4. " " Total No. 1 Mine (Air Hoists and Pumps)	62,400	71,680
5. " " Total No. 2 Mine (Hoists and Pumps)	54,250	55,670
6. " " No. 1 C. C. Plant	--	--
7. " " No. 1 F. C. Plant (No. 2 Ore)	17,664	19,008
8. " " No. 1 F. C. Plant (No. 1 Ore)	4,680	3,200
9. " " No. 1 Fine Grinding Plant	41,400	40,200
10. " " Flotation Mill	21,600	21,000
11. " " Total No. 1 Mill	111,600	122,920
12. " " Concentrate Drying Plant Meter	1,900	2,000
13. " " No. 2 C. C. Plant and Tramway	11,400	11,800
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	2,000	9,000
16. " " Gravel Loading Station	800	960
17. " " Limestone Plant Proper	28,800	36,000
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	24.68	26.66
19. Holston Quarry Total KW.	17,200	15,600

Maximum Demand this Month **3108** occurred on the April 1st at 12:45 P.M.

Quarry Demand this Month **340** " " " " 3rd 12:45 P.M.

May 10th., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Nascent, Tennessee.

Dear Sir,

The following is a report of the work done by the electrical and mechanical departments for the week ending May the 7th., 1930.

The electricians cleaned and painted motors in No.1 pump station. Installed cut off saw motor in mill for cutting jig lumber. Some time was spent running wires and installing drag motor at 1 H-E-Mill Hole. Some time was also spent straightening power lines around Lime Plant.

Some work has been done setting new poles and re-setting some old poles in Holston Hill Power Line. No. 2 exciter was taken apart, and commutator machined and milled out. Some work was done on General office lighting. Some B. & D. lighting repair "jobs" were also taken care of.

The following work was done by the shops and repair gang: Considerable time was spent overhauling mine cars. A steel gate was installed and put lock on it in Roseberry Drift in No.1 mine. The 18" valve in bulkhead on No.1 main level was removed, brought to the shop, and overhauled to be used at No.2 new pump station.

No.2 Jeansville pump at No.2 was overhauled. Some time was spent on stope drag repairs. A steel chute was made for No.2 mine. The usual amount of drill repairs was taken care of. Some work was done on Creek Prescott pump. Some bolts were turned out for No.2 Symons crusher. Bearings were repaired for No.2 C.C. Plant elevator. Some repair parts were turned out for mill chatt rolls. Some repair parts were also turned out for mill jigs. A small pulley was rebuilt for North Rolls. Some impellers were made up for flotation Janney machines.

Some repair parts were turned out for Quarry Churn drills. Quite a lot of time was spent on A.L.Co.'s aero pulverizer repairs. Parts were also turned out for Quarry Steam shovel. Remainder of time was spent on other miscellaneous "jobs".

Yours very truly,

W. Mitchell

ICM:W.

Power and Mechanical Report For Week Ending May 7th., 1930.

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	44	376
No. 2	918	989

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
5/7	Some of Motors Kicked off	1:56p.m.			Low Voltage.

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	11,377	11,112
Tons Milled	10,800	11,621
1. KW. Hrs. Total Plant	295,900	303,900
2. " " Total Lime Plant and Gravel Loading	32,760	29,600
3. " " Total Air Compressors	41,820	39,600
4. " " Total No. 1 Mine (Air Hoists and Pumps)	58,240	62,400
5. " " Total No. 2 Mine (Hoists and Pumps)	55,270	54,230
6. " " No. 1 C. C. Plant	--	--
7. " " No. 1 F. C. Plant (No. 2 Ore)	17,984	17,664
8. " " No. 1 F. C. Plant (No. 1 Ore)	--	4,680
9. " " No. 1 Fine Grinding Plant	40,200	41,400
10. " " Flotation Mill	21,240	21,600
11. " " Total No. 1 Mill	106,760	111,600
12. " " Concentrate Drying Plant Meter	2,860	1,900
13. " " No. 2 C. C. Plant and Tramway	11,400	11,400
14. " " Air Used at Limestone Plant	5,000	5,000
15. " " Tube Mills A. L. Company	7,000	2,000
16. " " Gravel Loading Station	960	600
17. " " Limestone Plant Proper	51,800	28,800
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	23.15	24.68
19. Holston Quarry Total KW.	14,000	17,200

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....

May 17th., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Hassot, Tennessee.

Dear Sir:

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday May the 14th., 1930.

The electricians handled the following "jobs":
Stope drag power line to 1-P Mill Hole was repaired. Helped move stope drag hoist at 9 E Mill Hole, and extended power line to new location. Repaired light and signal lines in No.2 skip pocket. Some new brushes and springs were put on Rotary Converter.

Changed bearing on pulley end of filter motor at concentrate drying plant. Put new instrument potential transformer and no voltage release coil on tube mill return pump compensator. Bearing was changed on pulley end of slime pump motor at A.L.Co. Slime pond.

Two coils were cut out of tube mill return pump motor. The coils were high, and rotor rubbed insulation off, causing coils to shoot to ground. Some time was spent cleaning and oiling all office fans. Some time was spent on B & D lighting repairs. Some work was also done on Holston Hill power line.

The electricians also helped mechanics in installation of Cameron pump at Creek pump house. The 50 H.P. motor that was on old American pump was brought to the shop and thoroughly cleaned and painted.

The following work was done by the shops and repair gang: Considerable time was spent overhauling mine cars. Some spare repair parts were turned out for No.2 Jeansville pumps. Considerable time was spent on stope drag repairs. Thrust bearing was changed on Jeansville pump in No.1 Mine.

Some time was spent building a new drag loader for use in drifting in No.2 mine. A spare skip at No.2 was completely overhauled. A new belt was put on No.4 ventilation fan.

The usual amount of mine drill repair was taken care of.

A new fabrail pinion was put on mill Gould pump. Some repair parts were turned out for mill screens. Repair parts were also turned out for No.2 Gyrratory crusher. A number of bolts were made for new rougher jig.

A tram bucket was brought to shop last Sunday and overhauled. The 2 1/2" Cameron pump and motor were taken from pump shed and installed at Creek pump house, replacing the old American pump which had a bursted casing. So far the small Cameron has supplied the demand for water without difficulty, while gravel department is not storing ballast or making sand, and don't require near so much water now as when making sand or storing ballast, but when excess water is required we can furnish it from the mine.

A number of boot pulleys were machined for stock. Some repair parts were turned out for A.L.Co. dryer feeders. Valves were ground on one of Quarry trucks. Some repair parts were made for Quarry steam shovel.

The usual amount of B. & D. plumbing and camp water line repairs were taken care of. Remainder of time was spent on miscellaneous work.

Yours very truly,



ICM:W.

CC:HIY
MLA
JHH

Power and Mechanical Report For Week Ending May 14th., 1930.

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	38	44
No. 2	769	918

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
5/8	Everything Down	11:36A.M.		1	Power off-Cause Unknown.
"	"	12:01P.M.		1	
5/11	(3) 66000 Switch Opened	7:58A.M.		13	By arrangement with Power Co.
5/13	Everything Down	12:37P.M.		1	Storming.

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	12,586	11,377
Tons Milled	12,050	10,800
1. KW. Hrs. Total Plant	305,000	295,900
2. " " Total Lime Plant and Gravel Loading	27,840	32,760
3. " " Total Air Compressors	44,160	41,820
4. " " Total No. 1 Mine (Air Hoists and Pumps)	59,840	58,230
5. " " Total No. 2 Mine (Hoists and Pumps)	49,990	55,270
6. " " No. 1 C. C. Plant	--	--
7. " " No. 1 F. C. Plant (No. 2 Ore)	20,416	17,984
8. " " No. 1 F. C. Plant (No. 1 Ore)	--	--
9. " " No. 1 Fine Grinding Plant	40,200	40,200
10. " " Flotation Mill	23,160	21,240
11. " " Total No. 1 Mill	120,760	106,760
12. " " Concentrate Drying Plant Meter	2,660	2,660
13. " " No. 2 C. C. Plant and Tramway	12,200	11,400
14. " " Air Used at Limestone Plant	5,000	5,000
15. " " Tube Mills A. L. Company	2,000	7,000
16. " " Gravel Loading Station	1,440	960
17. " " Limestone Plant Proper	26,400	31,600
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	22.37	25.13
19. Holston Quarry Total KW.	16,400	14,000

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....

May 24th., 1930.

Mr. C. E. Strachan, Gen. Supt.,
American Lumber Company of Tenn.,
Hazard, Tennessee.

May 22nd., 1930.

Dear Sir:

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday May 22nd., 1930.

Mr. P. M. Arthur, has brought 100 H.P. motor to the shop from Labor Office, and have spent some time reconnecting it for operation on 440 volt circuit. Some time was spent taking motor readings on concentrate drying plant motors.

Referring to Workmen's Safety Committee, and temporary power line run from motor generator to test drag motor, report of May 5th., 1930, wish to advise that 1500 lbs drag. No. 2 cage hoist gears were overhauled last Sunday during shift, relative to placing light between No. 5 & 6

driers at lime plant, was not considered necessary repairs. Overhauled tramway oil switch. A new bearing was put in pulley end of No. 2 cage hoist. Some time was spent on E. & B. lightning repairs.

Yours very truly,
J. Mitchell
Some time was spent on regular operation and miscellaneous repairs.

ICH:W.

The shops and repair gang were kept busy on the following "jobs". Considerable time was spent overhauling mine cars. Some time was spent building new drag loader. A new slope drag hoist was received and brought to the shop, set up and tested, then taken to No. 2 mine and installed.

Some time was spent last Sunday relining No. 2 head frame where skip discharges into bin. Some repairs were turned out for No. 2 mine track. Repairs were also made on loading chutes.

Some time was spent on mine locomotive repairs. The usual amount of mine drill repairs was taken care of.

May 24th., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Mascot, Tennessee.

Dear Sir:

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday May the 21st., 1930.

The electricians brought 100 H.P. motor to the shop from Silver Dyke stock and have spent some time reconnecting it for operation on 440 volt circuit. Some time was spent taking meter readings on concentrate drying plant motors.

New stope drag hoist was brought to the shop, and temporary power line run from motor generator to test drag motor. Some time was spent putting wiring in mine for stope drag. No.2 cage hoist grids were overhauled last Sunday during shut down.

Some time was spent on mine locomotive motor repairs. Overhauled tramway oil switch. A new bearing was put in pulley end of new Dorr tank motor. Some time was spent on B. & D. lighting repairs.

Farm and surface light lines were repaired where they swung together and burned down during storm last Sunday. Some time was spent straightening up mine light and signal lines. Remainder of time was spent on regular operation and miscellaneous repairs.

The shops and repair gang were kept busy on the following "jobs": Considerable time was spent overhauling mine cars. Some time was spent building new drag loader. A new stope drag hoist was received and brought to the shop, set up and tested, then taken to No.2 mine and installed.

Some time was spent last Sunday relining No.2 head-frame where skip discharges into bin. Some repairs were turned out for No.2 mine track. Repairs were also made on loading chutes.

Some time was spent on mine locomotive repairs. The usual amount of mine drill repairs was taken care of.

A number of wearing plates were made for No.2 Gyratory crusher. Some repairs were turned out for Trommel screens. A number of bolts were made for new jig.

One of Quarry churn drill motors was brought to the shop, shaft built up and re-keyseated.

Some time was spent on A.L.Co. aero pulverizer repairs. One of A. L. Co.'s dryer smoke stacks was repaired. The usual amount of B. & D. plumbing was taken care of.

Remainder of time was spent on miscellaneous work.

Yours very truly,

W. Mitchell

ICM:W

CC:HIY
ELA
JHH

Power and Mechanical Report For Week Ending May 21st., 1930.

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	369	38
No. 2	812	769

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
No interruptions or delays.					

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	12,380	13,386
Tons Milled	12,555	12,050
1. KW. Hrs. Total Plant	314,800	305,000
2. " " Total Lime Plant and Gravel Loading	25,560	27,840
3. " " Total Air Compressors	49,320	44,160
4. " " Total No. 1 Mine (Air Hoists and Pumps)	76,160	59,840
5. " " Total No. 2 Mine (Hoists and Pumps)	49,470	49,990
6. " " No. 1 C. C. Plant	--	--
7. " " No. 1 F. C. Plant (No. 2 Ore)	17,280	20,416
8. " " No. 1 F. C. Plant (No. 1 Ore)	--	--
9. " " No. 1 Fine Grinding Plant	41,700	40,200
10. " " Flotation Mill	23,280	23,160
11. " " Total No. 1 Mill	120,040	120,760
12. " " Concentrate Drying Plant Meter	3,400	2,860
13. " " No. 2 C. C. Plant and Tramway	12,000	12,200
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	--	2,000
16. " " Gravel Loading Station	960	1,440
17. " " Limestone Plant Proper	24,600	26,400
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	23.36	22.37
19. Holston Quarry Total KW.	21,600	16,400

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....

May 31st., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Nascot, Tennessee.

Dear Sir:

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday May the 28th., 1930.

The electricians have been kept busy on the following "jobs": The reconnecting "job" on the 100 H.P. motor for Holston Quarry Company was completed and motor taken to lime plant and given thorough test, then loaded for shipment to Watauga.

The 35 H.P. motor was also brought to the shop, cleaned and painted and new shaft put in and is also ready for shipment to Holston Quarry Company when they are ready.

An oil circuit breaker was brought to the shop and overhauled for use with 125 H.P. motor on Cameron pump loaned to Holston Quarry Company. A bearing was changed on front end of circulating pump motor at compressor room. Repairs were made to east incline and No.2 crushing plant controllers.

The $7\frac{1}{2}$ H.P. sub level car hoist motor was brought from No.2 to the shop and thoroughly cleaned and painted to be returned to stock.

The new stope drag installation was completed and put in operation. Some time was spent on locomotive repairs. A number of B. & D. lighting repair "jobs" were taken care of. A 10 H.P. motor was installed at lime plant to operate new car hoist. Remainder of electricians time was spent on regular operation and miscellaneous jobs.

The shops and repair gang were kept busy on the following "jobs": Considerable time was spent overhauling mine cars. Installation of new stope drag hoist was completed. Some time was spent putting new drag loader in operation.

The repairs to No.2 headframe where skip discharges into bin were completed last Sunday. A number of rope ladders were made up for No.2 mine. Some repairs were turned out for No.2 Jeansville pumps.

Some time was also spent on chute door repairs for No.2 mine. Some repairs were turned out for stope drag hoists. One of drag hoist rope drums was brought to the shop and ring rewelded on same.

New shafts were put in two locomotive motor armatures. A tram bucket was brought to the shop last Sunday and completely overhauled. A number of belts were made for mill jigs. Some plunger rods were made for mill jigs. Some repair parts were turned out for mill Prescott pump.

Some time was spent on repairs for A.L.Co.'s dryer feeders. Some time was also required on aero pulveriser repairs.

Some time was spent machining best pulleys for stock. A number of belts were also made for stock, and a number of large washers for mine car repairs were also made up for stock.

Remainder of time was spent on miscellaneous repair "jobs".

Yours very truly,

A handwritten signature in cursive script, appearing to read "A. Mitchell", written over a horizontal line.

ICM:W.
CC:HIY
MLA
JHN

Power and Mechanical Report For Week Ending May 28th., 1930.

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	58	569
No. 2	790	812

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
No interruptions or Delays.					

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	12,165	12,330
Tons Milled	12,520	12,555
1. KW. Hrs. Total Plant	306,000	314,800
2. " " Total Lime Plant and Gravel Loading	25,440	25,560
3. " " Total Air Compressors	48,000	49,320
4. " " Total No. 1 Mine (Air Hoists and Pumps)	66,560	76,160
5. " " Total No. 2 Mine (Hoists and Pumps)	81,190	49,470
6. " " No. 1 C. C. Plant	--	--
7. " " No. 1 F. C. Plant (No. 2 Ore)	16,704	17,280
8. " " No. 1 F. C. Plant (No. 1 Ore)	--	--
9. " " No. 1 Fine Grinding Plant	42,600	41,700
10. " " Flotation Mill	25,520	25,280
11. " " Total No. 1 Mill	116,440	120,940
12. " " Concentrate Drying Plant Meter	3,300	3,400
13. " " No. 2 C. C. Plant and Tramway	12,400	12,000
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	--	--
16. " " Gravel Loading Station	640	960
17. " " Limestone Plant Proper	22,800	24,600
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	23.23	25.36
19. Holston Quarry Total KW.	22,000	21,600

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....

June 7th., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Mascot, Tennessee.

Dear Sir:

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday June the 4th., 1930.

The electricians were kept busy on the following "jobs"; Light and signal circuits in No.2 skip pocket were repaired. East incline hoist controller was also repaired. A 5 H.P. motor was moved from sample house to Laboratory and connected up for operation of experimental equipment. Some time has been spent straightening up wiring, etc., over the "job" in accordance with recommendations made by safety committee.

Some time was spent at lime plant completing car hoist motor installation and straightening up light lines. Some time was spent on B. & D. lighting repairs. A Janney motor that had been overhauled in the shop was installed at flotation mill last Sunday, replacing No.3 motor which was brought to the shop and thoroughly cleaned and painted and put in good shape, and will be installed this coming Sunday to replace another motor. We expect to continue this till all motors are put in good shape.

Some time was spent on trolley locomotive repairs. Some time was spent running temporary line from switch board to the shop and testing new stope drag motor. New lighting was put in around new jig. Some time was also spent on mill lighting repairs. A flood light was put on 75 foot tramway tower near drying plant so closer watch can be kept on tramway at night. Remainder of electricians time was spent on regular operation and miscellaneous "jobs".

The shops and repair gang were kept busy on the following "jobs"; Considerable time was spent overhauling mine cars. Some time was required on new car drag loader repairs. New channel center guide supports were put in No.2 headframe in skip compartment last Sunday. A new drag hoist was unloaded and brought to the shop and tested, then delivered to No.2 mine. A spare shaft was made for No.2 Jeansville pumps. Some locomotive armature heads were built up and machined down to size for locomotive motors.

Most of the day last Monday was spent clearing up breakdown on tramway. A number of bolts were made for jigs. Some boot pulleys were machined for stock.

A number of liners were cut for jigs and jig launders. A new lower journal sleeve was put on a flotation Janney motor. Some time was spent on A.L.Co.'s aero pulverizers.

The usual amount of B. & D. plumbing and camp water line repairs was taken care of.

Remainder of time was spent on miscellaneous jobs.

Yours very truly,

A Mitchell

ICM:W.

CC:HIY

NLA

JNH

Power and Mechanical Report For Week Ending June 4th., 1930.

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	837	58
No. 2	754	790

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
5/29	Everything Down	7:44A.M.		2	Power Off-Cause Unknown.
6/2	No.2 C.C.Plant	11:30P.M.		50	Magnet Generator shot. Started big generator at No.1
6/3	Everything Down	2:53P.M.		2	Power off-Cause Unknown.

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	11,296	12,165
Tons Milled	11,545	12,520
1. KW. Hrs. Total Plant	305,800	306,000
2. " " Total Lime Plant and Gravel Loading	23,760	23,440
3. " " Total Air Compressors	46,920	48,000
4. " " Total No. 1 Mine (Air Hoists and Pumps)	83,200	66,560
5. " " Total No. 2 Mine (Hoists and Pumps)	47,270	51,190
6. " " No. 1 C. C. Plant	--	--
7. " " No. 1 F. C. Plant (No. 2 Ore)	16,192	16,704
8. " " No. 1 F. C. Plant (No. 1 Ore)	--	--
9. " " No. 1 Fine Grinding Plant	35,700	42,600
10. " " Flotation Mill	22,080	23,520
11. " " Total No. 1 Mill	108,800	116,440
12. " " Concentrate Drying Plant Meter	3,100	3,300
13. " " No. 2 C. C. Plant and Tramway	11,000	12,400
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	800	--
16. " " Gravel Loading Station	960	640
17. " " Limestone Plant Proper	22,800	22,800
18. TOTAL KW. HRS. PER TON MINED A, Z. COMPANY	24.96	23.23
19. Holston Quarry Total KW.	16,400	22,000

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....

Mr. Young
June 9th., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Mascot, Tennessee.

Dear Sir:

The following figures are comparisons of power bill based on our present K.V.A. rate, and old schedule A. While we made some saving, it was not as much as we anticipated, when taking our good power factor into consideration.

The maximum demand at one and two was 2890 K.W. The reactive demand was 1248, which gives us .918 power factor, that gives us 3148 K.V.A. demand. And adding 2% for transformer losses makes a total of 3211 K.V.A. demand.

Our total K.W. hours consumed at one and two substations was 1,366,000 plus 2% for transformer losses gives a total of 1,393,320 K.W.

The demand charge is as follows:

1000 K. V. A.	@ \$1.50	equals	\$1,500.00
1000 "	" 1.25	"	1,250.00
1211 "	" 1.00	"	1,211.00
Total 3211 "			\$3,961.00

Then basing K.W. hour consumption on rate B, which is for 3000 to 4000 K.V.A. demand, we find the following:

150 x 3211 x .008	equals	\$3,853.20
100 x 3211 x .005	"	1,605.50
1,393,320 K.W. minus 802,750 = 590,570		
590,570 K.W. @ .004	equals	2,362.28
Gross bill		\$11,781.98
Less 5%		589.10
		\$11,192.88
Transformer rental		137.50
		\$11,330.38

Then figuring Quarry power on rate A we find the following. The Quarry demand was 360 K.W., and the K.W. hour consumption was 82,400

360 K.W. Demand	@	\$1.50	equals	\$540.00
500 Kw. hrs.	"	.04	"	20.00
1500 " "	"	.02	"	30.00
2500 " "	"	.015	"	37.50
3500 " "	"	.0125	"	43.75
17000 " "	"	.01	"	170.00
25000 " "	"	.008	"	200.00
32400 " "	"	.007	"	226.80
Total				\$1,268.05
Less 5%				63.40
Net bill				\$1,204.65

Total Quarry and Mascot bills, \$11,330.38 plus \$1,204.65 equals \$12,535.03

Total bill based on schedule A would figure as follows:

2890 K.W. Demand plus 360 equals 3250

3250 K.W. Demand @	\$1.50	equals	\$4,875.00
500 K.W. hrs.	" .04	"	20.00
1500 " "	" .02	"	30.00
2500 " "	" .015	"	37.50
3500 " "	" .0125	"	43.75
17000 " "	" .01	"	170.00
25000 " "	" .008	"	200.00
250000 " "	" .007	"	1750.00
400000 " "	" .006	"	2400.00
748400 " "	" .005	"	3742.00
1448400	Total		\$13,267.25
	Less 5%		663.36
	Net bill		12,603.89

\$12,603.89 minus \$12,535.03 equals \$68.86, making a net saving of only \$68.86

There is a chance for us to improve power factor conditions as time goes on, and possibly show more saving. However, it will take some time to tell just how we are going to come out on the new schedule.

Yours very truly,

H. Mitchell

ICM:W.
CC:Mr.HIT
Mr.NLA

W.H.

June 11th., 1930.

Mr. P. M. Arthur,
Labor Office.

Dear Sir:-

Referring to Workmen's Safety Committee
report of June the 3rd., wish to advise that recom-
mendation No.6 has been complied with.

Yours very truly,

J. Mitchell

CC:HIY
CBS

June 14th., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Mascot, Tennessee.

Dear Sir:-

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday June the 11th., 1930.

The electricians were kept busy on the following jobs. A 30 H.P., 2200 volt, Ideal Electric Company motor was received from Holston Quarry Company, Beverly South Carolina. It was put through the shop, thoroughly cleaned, and reconnected for use on 440 volts, and is ready for shipment to the Watauga plant.

Transformers were set at flotation mill to supply the motors on new flotation machine, machines connected up and put in operation. Some time has been spent on mill lighting repairs. Also straightening up wiring around mill pumps, and Dorr tanks.

A trolley locomotive motor was thoroughly cleaned and inspected. Another Janney motor was changed at flotation plant. The old motor was brought to the shop and new bearings put in and motor given thorough cleaning and painting. Some time was spent on B. & D. light repairs, and some time was spent on stope drag motor wiring.

No.2 east incline controller was inspected and repaired. A number of other miscellaneous jobs were taken care of.

The shops and repair gang were kept busy on the following jobs. Considerable time was spent overhauling and repairing No.2 mine cars. The setting of new stope drag hoist was completed.

The south skip cable at No.2 was changed last Thursday morning between 5:00 and 8:00 A.M. On inspection we found cable was getting in bad shape. Some broken wires in all strands, and most of the trouble was on end at the drum which indicated cable was too hard. On inspection of records we find it was ordered from Wickwire Spencer. We replaced it with American Steel & Wire Cable.

A new set of arms were made and assembled for stope drag. Some time was spent on trolley locomotive repairs. Some repairs were made to No.2 tippie. No.3 compressor was thoroughly inspected last Sunday, and a new set of piston springs put on low pressure piston.

The usual amount of mine drill repairs were taken care of. Some time was spent machining boot pulleys for stock. Some bearings were babitted and machined for Janney motors.

Remainder of time was spent on miscellaneous jobs and plant cleanup.

Yours very truly,

A Mitchell

ICM:w.
CC:HIY
MLA
JHH

Power and Mechanical Report For Week Ending June 11th., 1930.

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	375	337
No. 2	760	754

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
6/5	Everything Down	4:11P.M.		1	
"	" "	4:36P.M.		1	
6/7	" "	6:55P.M.		1	Power Off-Cause Unknown.

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	12,786	11,226
Tons Milled	12,180	11,545
1. KW. Hrs. Total Plant	310,400	305,800
2. " " Total Lime Plant and Gravel Loading	28,120	23,760
3. " " Total Air Compressors	50,100	46,920
4. " " Total No. 1 Mine (Air Hoists and Pumps)	78,400	83,200
5. " " Total No. 2 Mine (Hoists and Pumps)	47,910	47,270
6. " " No. 1 C. C. Plant	--	--
7. " " No. 1 F. C. Plant (No. 2 Ore)	19,264	16,192
8. " " No. 1 F. C. Plant (No. 1 Ore)	--	--
9. " " No. 1 Fine Grinding Plant	32,900	35,700
10. " " Flotation Mill	19,920	22,080
11. " " Total No. 1 Mill	116,000	108,800
12. " " Concentrate Drying Plant Meter	2,860	3,100
13. " " No. 2 C. C. Plant and Tramway	12,000	11,000
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	5,200	860
16. " " Gravel Loading Station	1,120	960
17. " " Limestone Plant Proper	27,000	22,800
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	22.08	24.96
19. Holston Quarry Total KW.	15,200	16,400

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....

June 16th., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Harcot, Tennessee.

Dear Sir:-

On May the 20th we ran a 30 minutes test on our motor generator set at No.2. We arranged with the mining department for them to operate all D. C. equipment supplied by the generator set at maximum for a period of 30 minutes, beginning at 10:00 A.M.

Two additional stope drags have been installed since this test was made.

Following is record of the test:

Voltage at hoist house was 255, and voltage test was made on end of main level haulage drift, and ammeter readings at hoist house.

TIME	VOLTS	AMPS.
10:00 A.M.	220	350
10:01	230	350
10:02	215	320
10:03	200	400
10:04	200	300
10:05	200	500
10:06	215	300
10:07	200	200
10:08	190	300
10:09	215	300
10:10	220	400
10:11	210	300
10:12	200	400
10:13	215	400
10:14	220	420
10:15	210	450
10:16	190	500
10:17	222	500
10:18	250	300
10:19	215	400
10:20	250	400
10:21	215	420

10:22	210	300
10:23	210	300
10:24	220	350
10:25	220	300
10:26	200	300
10:27	220	400
10:28	225	300
10:29	220	300
10:30	225	325

This indicates an average load of about 370 amps. The rating of the machine is 800 amps. The voltage drops quite low at times with this load, but shows some better than a previous test. This is due to having the 5 level circuit cut into main level circuit. This indicates that with the addition of the large cable we are going to put in for stop drag supply, and some rail bonding we contemplate doing, I feel from these calculations it will be safe to say our present equipment will take care of equivalent load of additional four or five stop drags of our present 25 H.P. type.

Yours very truly,

A. Mitchell

CC:NIY
HLA
HAC

June 20th., 1930.

Mr. C. B. Strachan, Gen. Supt..
American Zinc Company of Tenn..
Mascot, Tennessee.

Dear Mr. Strachan:-

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday June the 18th., 1930.

The electricians have been kept busy on the following "jobs": The east incline hoist controller was completely overhauled last Sunday.

A new box of grids was put in and controller completely overhauled on No.1 cage hoist. The trouble on this controller was caused by pulling Jeffrey locomotive out of No.1 mine. Some time was spent on No.2 mine lighting.

The rotary converter oil switch was repaired. Some time was spent on B. & D. lighting repairs. Some time was spent repairing flotation mill Janney motors. The Holston Quarry Company motor repair "job" was finished and motor is ready for shipment.

The following lighting repair "jobs" were taken care of, mill return pump lights, jig mill lights, and No.2 coarse crushing plant lights.

The new hand starting equipment has been made up for creek Prescott pump and set ready to be cut in and out the automatic switch out which will be brought through the shop and overhauled before being installed in No.1 mine.

Some time was spent straightening up motor and light wiring in the carpenter shop. The battery on Jeffrey locomotive in No.1 mine was disconnected. The motors and controller were brought to the shop and are being completely overhauled.

Some time was spent last Sunday straightening up east incline cables. A 10 H.P. motor was brought to the shop from Silver Dyke stock and reconnected for use on 440 volt circuit.

The shops and repair gang have been kept busy on the following "jobs": A new jack shaft was put in 13 level Aldrich pump. Considerable time was spent overhauling mine cars. Skips were changed at No.2 A number of repair parts were turned out for No.2 mine car repairs.

The conduit for automatic switch control for No.1 mine pump was put in, and air line was also connected so air on the pump can be controlled from compressor room. The automatic lubricator was installed on the pump.

The Jeffrey locomotive was brought out of mine and to the shop to be widened out for use on 24 inch gauge track. New axles are being made, and locomotive being completely overhauled for use in new haulage drift at No.2

Some time was required on stope drag repairs. The usual amount of mine drill repairs were taken care of. A number of bolts were made for mill jigs and for No.2 Symons crusher. An eccentric was metalled for No.2 Gyratory crusher.

Some time was spent welding bucket bails, and getting out other repairs for Quarry steam shovels.

A number of repair parts were turned out for A.L.Co.'s dryer feeders. The bulk loader frame was brought from lime plant to the shop and straightened up. It was wrecked by car bumping into the one that was being loaded. Some time was spent on A.L.Co.'s aero pulverizer repairs. The usual amount of B. & D. plumbing was taken care of.

Toilets are being installed in No.2 change house. A number of other miscellaneous "jobs" were taken care of.

Yours very truly,

Smithell

ICH:W.
CC:HIY
MLA
JHH

Power and Mechanical Report For Week Ending June 18, 1930

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	59	575
No. 2	745	750

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
6/12	Everything Down	11:59 A.M.		2	Cause Unknown

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	12,275	12,756
Tons Milled	12,285	12,180
1. KW. Hrs. Total Plant	302,800	310,400
2. " " Total Lime Plant and Gravel Loading	26,160	28,120
3. " " Total Air Compressors	55,760	50,100
4. " " Total No. 1 Mine (Air Hoists and Pumps)	68,160	73,400
5. " " Total No. 2 Mine (Hoists and Pumps)	46,470	47,910
6. " " No. 1 C. C. Plant	-	-
7. " " No. 1 F. C. Plant (No. 2 Ore)	18,496	19,264
8. " " No. 1 F. C. Plant (No. 1 Ore)	-	-
9. " " No. 1 Fine Grinding Plant	39,420	39,900
10. " " Flotation Mill	22,800	19,920
11. " " Total No. 1 Mill	118,440	116,000
12. " " Concentrate Drying Plant Meter	3,240	2,860
13. " " No. 2 C. C. Plant and Tramway	11,400	12,000
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	2,400	5,200
16. " " Gravel Loading Station	960	1,120
17. " " Limestone Plant Proper	25,200	27,000
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	22.53	22.08
19. Holston Quarry Total KW.	15,600	15,200

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....

June 23, 1930

Mr. C. E. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Mascot, Tennessee.

Dear Mr. Strachan:-

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday June the 23th., 1930.

The electricians have been kept busy on the following "jobs":
A considerable amount of time was spent overhauling Little Jeffry Locomotive motors for use in No. 2 Mine.

The hand operated starting equipment was installed at Creek Prescott pump, and the Automatic Control panel brought to the shop, and thoroughly cleaned and repaired, and installed at No. one mine pump station for operation of Prescott pump.

A ten horsepower motor was reconnected and installed at Lime plant to drive wilflay pump to put water to the sand classifier on the hill.

A trolley Locomotive motor was cleaned and inspected for No. 2.

Some time was spent on B. & D. lighting repairs.

The frigidaire motor at Mess Hall, was brought to the shop and cleaned and painted, and new set of bearings put in.

A signal circuit was connected up between mill and creek pumps for use in starting and stopping pumps.

A number of street lights were replaced over the camp.

Some time was spent in the shop overhauling electric fans.

Remainder of time was spent on regular operation and miscellaneous inspections and repairs.

The shops and repair gang were kept busy on the following jobs:

Considerable time was spent overhauling mine cars. One of the skips was brought to the shop from No. 2 and overhauled.

The little jeffry Locomotive has been overhauled and is about ready to go to No. 2 mine.

Toilet fixtures have been installed in No. 2 change house.

Some repair parts were turned out for No. 2 mine track. Some armature heads were built up and turned off for No. 2 mine Locomotives.

Some repair jobs were turned out for stope drags.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Page "2"

The usual amount of mine drill repairs was taken care of.

A number of bolts were made for mill jig repairs.

A number of repair jobs were turned out for A. I. Co. soro
pulverizers.

Some repair parts were turned out for quarry steam shovel.

No. 1 Fire pump was completely overhauled, putting in new valves
and valve seats.

The usual amount of camp water line repairs and P. & R. plumbing
was taken care of. A car load of motors were unloaded and put in table room.
Remainder of time was spent on other miscellaneous "jobs".

Yours very truly,

Smithell

IGH:B.
OG:HIY-Mascot
E. St. L.
H. L. A.
J. H. H.

Power and Mechanical Report For Week Ending June 25, 1930

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	73	59
No. 2	735	749

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
6/21	Motors Kicked Out	1:17 PM		•	storming
"	Everything Down	3:07 PM		5	"
"	Motors Kicked Out	6:12 PM		•	"

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	12,352	12,275
Tons Milled	12,700	12,285
1. KW. Hrs. Total Plant	315,200	302,600
2. " " Total Lime Plant and Gravel Loading	30,560	26,160
3. " " Total Air Compressors	55,540	53,760
4. " " Total No. 1 Mine (Air Hoists and Pumps)	75,540	66,160
5. " " Total No. 2 Mine (Hoists and Pumps)	48,670	46,470
6. " " No. 1 C. C. Plant	-	-
7. " " No. 1 F. C. Plant (No. 2 Ore)	17,856	18,496
8. " " No. 1 F. C. Plant (No. 1 Ore)	-	-
9. " " No. 1 Fine Grinding Plant	40,380	39,420
10. " " Flotation Mill	20,580	22,800
11. " " Total No. 1 Mill	120,560	118,440
12. " " Concentrate Drying Plant Meter	3,200	3,240
13. " " No. 2 C. C. Plant and Tramway	12,000	11,400
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	3,200	2,400
16. " " Gravel Loading Station	960	960
17. " " Limestone Plant Proper	29,400	25,200
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	25.09	22.53
19. Holston Quarry Total KW.	15,200	15,600

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....

July 7th., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Nascot, Tennessee.

Dear Sir:-

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday July 2nd, 1930.

The electricians were kept busy on the following jobs: The Prescott pump motor in No.1 mine was cut over to the automatic starting equipment. We experienced some trouble with it last Sunday night when a check valve burst on pump and water got into oil switch and blew up primary cut outs on oil circuit breaker behind the switch board. The trouble was caused by defective check valve.

We also had some trouble with an oil circuit breaker on No.2 rod mill. This was caused by loose connection in top of breaker. The breaker was brought to shop and completely overhauled and put back in service.

Transill oil and primary contact block were changed in No.2 east incline controller. Changed bearing on pulley end of S. H. P. dryer motor at drying plant. Also put new pulley on motor. The bearing was changed on pinion end of 13 level Aldrich pump motor at No.2

Some time was spent installing motors and controller and testing out small locomotive that was overhauled in shop for drift work at No.2. Some time was spent straightening up light wiring around flotation plant. Some time was required on frigidaire motor at mess hall. Some time was also spent straightening up light and signal wiring at No.2

All scrap copper wire around steel yard and sheds was cleaned out and insulation burned off. A flood light was installed on 75 ft. tower below the mill, and switch put inside of mill where operator can cut it out when not in use.

The shops and repair gang have been kept busy on the following work: Considerable time was spent overhauling mine cars and turning out repairs for cars that are in operation. Some time was spent on No.2 skip repairs.

The day was spent last Sunday by the repair gang cleaning out No.2 shaft, getting everything ready to put pipe line and cable in for new pump station.

The valves were changed in 13 level Aldrich pump at No.2. Some time was spent on No.1 Prescott pump for automatic pumping. Some repairs were turned out for No.2 track. A number of repair parts were turned out for slope drags.

The rebuilt locomotive was delivered to No.2 to be put into mine during the 4th of July shut down. Some repairs were turned out for No.2 locomotives. The usual amount of mine drill repairs was taken care of.

Some time was spent boring out, keyseating and drilling new steel castings for No.2 tippie. Some repair parts were turned out for mill jigs. Valve seats were repaired for mill Gould pump. A tube mill shaft was key-seated for No.1 mill.

A considerable amount of repairs were turned out for Quarry steam shovel. Some repairs were turned out for A. L. Co.'s filter pump. Repair parts were also turned out for A.L.Co.'s dryers.

Considerable time was spent trying to swell end of churn drill bit to drill 14 inch hole.

The usual amount of E. & D. plumbing was taken care of. And the remainder of time was spent on routine work.

Yours very truly,

J. Mitchell

ICM:W.

Power and Mechanical Report For Week Ending July 2, 1930

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	261	72
No. 2	646	735

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MIN.	CAUSES
6/26	Everything Down	3:46PM		1	Power Off Unknown
6/27	No. 1 2200V Switch	4:50AM		15	Kicked by blowup in
"	No. 2 Red Mill	4:50AM	5	30	No. 2 Red Mill Oil Switch
"	No. 2 Skip Hoist	2:40AM		35	Overhauling Switch
6/29	No. 1 Main 2200V Switch	10:10PM		15	Single Phase on Primary
"	" " " "	12:10		5	Contactors.
6/30	Everything Down	3:16PM		1	Opened when water got into
7/1	" "	4:20AM		1	No. 1 Prescott Oil Switch
"	" "	4:36AM		15	Connecting water plant
7/2	Several Motors	11:00AM			circuit back to bus
	kicked out				Power Off Unknown
					" " "
					Motor Control on Reclosing
					Switch at Arlington Burned up
					Low Voltage

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	12,800	12,322
Tons Milled	12,800	12,700
1. KW. Hrs. Total Plant	318,800	315,200
2. " " Total Lime Plant and Gravel Loading	29,000	29,360
3. " " Total Air Compressors	59,400	55,640
4. " " Total No. 1 Mine (Air Hoists and Pumps)	82,180	75,840
5. " " Total No. 2 Mine (Hoists and Pumps)	48,250	48,670
6. " " No. 1 C. C. Plant	-	-
7. " " No. 1 F. C. Plant (No. 2 Ore)	19,360	17,855
8. " " No. 1 F. C. Plant (No. 1 Ore)	-	-
9. " " No. 1 Fine Grinding Plant	39,780	40,380
10. " " Flotation Mill	18,120	20,220
11. " " Total No. 1 Mill	119,640	120,360
12. " " Concentrate Drying Plant Meter	2,100	2,200
13. " " No. 2 C. C. Plant and Tramway	12,000	12,000
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	5,400	5,200
16. " " Gravel Loading Station	800	560
17. " " Limestone Plant Proper	20,200	22,400
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	22.46	23.09
19. Holston Quarry Total KW.	14,400	15,200

Maximum Demand this Month 8074 KVA occurred on the 12th. at 9:15 AM

Quarry Demand this Month 560 occurred the 25th. at 3:00 PM.

July 11th., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Nasoot, Tennessee.

Dear Sir:-

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday July the 9th., 1930.

The electricians were kept busy on the following "jobs": During the 4th shut down a considerable amount of work was done on No.1 substation switchboard. The main 2300 volt bus bars were widened out, giving more space between buses, which will enable us to put disconnecting switches between bus and compressor and generator oil circuit breakers.

A new series coil was put in tube mill circuit oil circuit breaker. Some time was spent straightening up 2300 volt cable in east incline at No.2. Part of hangers were put in No.2 main drift for installing cable for stope drag power.

A 125 volt feed line was run from 125 volt generator at No.2 to new drift for operating the little Jeffry locomotive while drift is being driven. A new set of bearings were put in water plant generator. Some time was spent straightening up light wiring in the mill.

A new primary cut out panel was built and put in No.1 mine pump station for pump circuits. Some time was spent repairing power line to 1 H-D-Mill hole drag.

The volt meter at No.2 crushing plant was moved out of motor room and installed where crusher operator can watch the voltage on the magnet circuit.

All the 66000 volt insulators at substations were cleaned. Some time was spent on locomotive motor repairs. An inspection was made of all B. & D. wiring & lighting. A number of B. & D. lighting repair "jobs" were taken care of.

Remainder of time was spent on other miscellaneous "jobs" and regular operations.

The shops and repair gang were kept busy on the following "jobs":

A considerable amount of time was spent overhauling mine cars. During the 4 th shut down the new steel castings and a new shaft were put in No.2 tippie. A number of other repair "jobs" were done on the tippie.

Some time was spent getting out material for No.2 new automatic pump station. Some repairs were made on No.2 skips. Some time was spent on stope drag and drag hoist repairs.

A number of hangers were made for No.2 drag power line. The usual amount of mine drill repairs were taken care of. Some time was spent getting out repairs for tram cars.

Some material was turned out for Quarry steam shovel repairs. And some time was spent on churn drill bit repairs. Two cracked casings were brought to the shop and welded for Quarry washing pump.

All fire fighting equipment was thoroughly inspected. Some repair parts were turned out for A.L.Co.'s dryer feeders. A new bearing was made for water plant generator.

A number of other miscellaneous "jobs" were taken care of during the week.

Yours very truly,

Smithell

ICH:W.

CC:HIY
CBS
ELA

Power and Mechanical Report For Week Ending July 9th.. 1950.

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	851	261
No. 2	742	646

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MIN.	CAUSES
7/7	Everything Down	1:40 P.M.		12	Low voltage. Trouble on 120000 V. line between Knoxville & Chattanooga.
"	Motors kicked out	2:41 P.M.		6	Low voltage. Storming between Knox. & Chatt.

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	8,560	12,600
Tons Milled	8,870	12,800
1. KW. Hrs. Total Plant	218,500	315,800
2. " " Total Lime Plant and Gravel Loading	17,440	29,000
3. " " Total Air Compressors	36,180	59,400
4. " " Total No. 1 Mine (Air Hoists and Pumps)	64,000	80,160
5. " " Total No. 2 Mine (Hoists and Pumps)	40,450	48,280
6. " " No. 1 C. C. Plant	--	--
7. " " No. 1 F. C. Plant (No. 2 Ore)	13,056	16,368
8. " " No. 1 F. C. Plant (No. 1 Ore)	--	--
9. " " No. 1 Fine Grinding Plant	23,160	39,780
10. " " Flotation Mill	11,280	18,120
11. " " Total No. 1 Mill	71,000	119,640
12. " " Concentrate Drying Plant Meter	1,660	3,100
13. " " No. 2 C. C. Plant and Tramway	9,000	12,800
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	1,600	5,400
16. " " Gravel Loading Station	640	800
17. " " Limestone Plant Proper	16,800	28,200
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	23.43	22.46
19. Holston Quarry Total KW.	8,000	14,400

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....

July 19th., 1930.

Mr. C. B. Strachan, Gen. Supt.,
American Zinc Company of Tenn.,
Nascot, Tennessee.

Dear Sir:-

The following is a report of the work done by the electrical and mechanical departments for the week ending Wednesday July the 16th., 1930.

The following "jobs" were handled by the electricians: The old Gould pump motor starting equipment was taken out of No.2 pump station and brought to the shop and cleaned and repaired and put in motor shed for use elsewhere.

The sample grinder motor was removed from Laboratory and installed in sample house. Some time was spent inspecting and repairing A.L.Co.'s oil circuit breakers, starting compensators, etc.

A signal light was put in at water plant, also one at creek pump house in circuit with the horn for start and stop signal from mill.

Some time was spent straightening up lights and lines around No.2 hoist house and mine foreman's office and electric shop. A number of oil circuit breakers were repaired in the shop and placed in motor shed to be used where needed.

A locomotive armature was rebanded for No.2 locomotive. Some time was spent on B. & D. lighting repair. Some time was spent straightening up No.2 magnet wiring. Hangers were put on trolley pipe supports for the stope drag feeder cable in main drift at No.2

Some time was spent on mine signal and lighting repairs. An old starting compensator was brought to the shop and overhauled, and installed in No.4 Fan motor house to break circuit to fan motor so operator can shut fan down for inspection without having to call hoist operator from depot.

The motors and transformers used on highway sand equipment were taken out and brought through the shop for inspection and returned to the motor shed.

The shops and repair gang have been kept busy on the following "jobs":

Considerable time was spent overhauling mine cars. The repair gang worked all day last Sunday cleaning out pipe compartment in No.2 shaft, getting it ready for putting in discharge column for new automatic pump.

A broken packing gland was replaced with new one on 13 level Aldrich pump. Some repair parts were turned out for No.2 mine track. A considerable amount of work was done on stope drag repairs.

All the rail bands in warehouse were brought to the shop and terminals drilled for installing with pins to be used in new drift at No.2

Eye beams and hanger rods were put in at No.2 shaft collar for supporting pump discharge column while changes are being made for new pump installation. A number of repairs were turned out for No.2 mine cars.

The fingers for safety chute at No.2 were brought to the shop and straightened up. Broken air line was repaired at No.2. Two new battery boxes were made for No.2 cage lighting.

A number of liners were cut for mill jigs. Some pipe threading was done for flotation mill. Some bolts were made for 54" rolls.

Some repair parts were turned out for Quarry steam shovel. Some repair parts were turned out for A. L. Co.'s coal pulverizer. The fire pump was given thorough inspection and all new valves put in.

Tires were reset on the Farm wagon. Remainder of time was spent on miscellaneous "jobs", and plant cleanup.

Yours very truly,


Supt. Power & Mech.

ICM:W.
CC:MIY
HLA
JHH

Power and Mechanical Report For Week Ending July 16th.. 1930

DATA:

MINE WATER PUMPED (Gallons Per Minute)

MINE	AVERAGE THIS WEEK	AVERAGE LAST WEEK
No. 1	822	551
No. 2	757	742

DELAYS DUE TO ELECTRICAL CAUSES AND POWER SERVICE INTERRUPTIONS

DATE	APPARATUS	TIME	HOURS	MINS.	CAUSES
7/10	Everything Down	3:02P.M.		2	Power Off-storming.
7/13	Several Motors Kicked	12:10A.M.		1	Low Voltage- "
"	" " "	12:56A.M.		1	" " "
"	" " "	4:36A.M.		1	" " "
"	Everything Down	4:55A.M.	1	5	Power Off-storming.
"	" " "	11:27A.M.		1	" " "
"	Motors Kicked	4:36P.M.		1	Low Voltage
"	" " "	4:39P.M.		1	" "

SUMMARY OF DEPARTMENT WEEKLY POWER METER READINGS

	THIS WEEK	LAST WEEK
Tons Mined	12,115	8,580
Tons Milled	13,135	8,870
1. KW. Hrs. Total Plant	312,000	216,500
2. " " Total Lime Plant and Gravel Loading	24,520	17,440
3. " " Total Air Compressors	55,920	36,180
4. " " Total No. 1 Mine (Air Hoists and Pumps)	93,760	64,000
5. " " Total No. 2 Mine (Hoists and Pumps)	45,910	40,590
6. " " No. 1 C. C. Plant	--	--
7. " " No. 1 F. C. Plant (No. 2 Ore)	18,240	13,056
8. " " No. 1 F. C. Plant (No. 1 Ore)	--	--
9. " " No. 1 Fine Grinding Plant	32,760	23,160
10. " " Flotation Mill	20,220	11,280
11. " " Total No. 1 Mill	110,240	71,000
12. " " Concentrate Drying Plant Meter	3,240	1,660
13. " " No. 2 C. C. Plant and Tramway	11,600	9,000
14. " " Air Used at Limestone Plant	3,000	3,000
15. " " Tube Mills A. L. Company	4,800	1,600
16. " " Gravel Loading Station	1,120	640
17. " " Limestone Plant Proper	23,400	16,800
18. TOTAL KW. HRS. PER TON MINED A. Z. COMPANY	23.81	23.43
19. Holston Quarry Total KW.	12,000	8,000

Maximum Demand this Month.....occurred on the.....at.....

Quarry Demand this Month.....